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THE JOURNAL OF PHILOSOPHY
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SPACE AND REALITY[1]

THERE are two aspects to the space concept. These have not been sufficiently differentiated in the past, *viz.*, the series character of the concept on the one hand and the void or non-being character on the other. The latter, or the ontological, aspect was the first, naturally, to be developed. It is involved in the concept of motion and interaction. It is the answer of the atomists to Parmenides and Melissos. Parmenides argued that non-being is unthinkable, therefore there can be no motion. The atomists argued that there is motion, therefore non-being must be real; and hence assumed atoms and the void as their two ultimate principles. In Empedocles and his followers the theory of pores as conditioning interaction of things both upon each other and upon our sense-organs might have opened up the problem of the relativity of knowledge, had the implication been seen by the author.

The other aspect of the space concept, that of series or form, could come into prominence only as the Copernican change took place from things to the mental processes and laws that make things what they appear. In so far as the serial idea is present in ancient times, as among the Pythagoreans, it is ontological; and against this ontological serial conception of space and time Zeno hurled his weapons. With Aristotle the concept of a figured space is upheld as against the void, but the boundary of one body with reference to another is still an ontological boundary. Since Kant it has been generally agreed that the space concept is adequately expressed in serial terms; and hence the ideality of space logically follows. That the ghost of the void, so long laid, should rise again must make the hair of the boldest Kantian fairly stand on end. But the thesis I

[1] This paper was read before the Western Philosophical Association, at Madison, April 21, 1906. I want here to thank the members of the association, especially Professors Tufts, Lovejoy, Stuart, Rebec, Bode, Stoops, Farley and others, for their full discussion, which has enabled me to state some points, perhaps, a little more clearly.

want to maintain in this paper is the ideality indeed of serial space, but the reality of space in a deeper sense as non-being. The Kantians in their anxiety to apotheosize their own intellects have neglected certain surds, the effect of which has been to make the whole result ghost-like and unreal. In the following I wish to say a few words about serial or ideal space, and then I shall proceed to the proofs for ontological space.

I. Ideal or Serial Space

First, a word as regards the presuppositions or the *a priori* character of the space intuition. It was this particularly that attracted the attention of Kant; and this priority to experience furnishes his most important proof for the ideality of space. The thundering dogmatism of the Kantian arguments for the ' transcendental ideality ' of space is almost ridiculous. It is not my purpose here to discuss his arguments. The first one is evidently a mere circle and amounts to saying that if you locate things in a space system, you do thus refer them. But who ever would suppose that the baby locates things in a space system. Neither do the rest of us, except as we are steeped in a certain philosophical and psychological theory. As regards the second argument, we can surely think qualities such as tonal qualities without extension. As regards the apodictic certainty of geometry, this has resolved itself into a mere matter of hypothetical logic. As far as space being one is concerned, there are as many space perspectives psychologically as there are individual consciousnesses. The 'one space' is a matter of social agreement. And so far as its infinity is concerned, that is not a matter of intuition, but of ideal construction, as every concept becomes infinite when you abstract from empirical data. But what is the use of wasting powder on a dead dog?

Since Spencer the *a priori* has been translated into biological instead of psychological terms. We do not inherit forms, but a certain kind of nervous structure. What Spencer did, however, was merely to translate. He still supposed that the axioms of geometry are intuitions in us due to inherited neural tendencies. It would not take a Locke to prove that the evidence for this is lacking. What we inherit is not axioms, but a tendency to develop certain coordinations in the growth series of the organism in obedience to certain stimuli, intra- and extra-organic, the continuity and order of the developmental series, whatever the content may be, being predetermined by natural selection.[2] Into whatever terminology in the end we may translate our biological terms, it at least can not be

[2] For the author's treatment of the *a priori*, see his article, 'Mind as Instinct,' the *Psychological Review*, March, 1906.

ideational terminology. Axioms belong (to use Baldwin's admirable distinction) to our social heritage, the tradition of the race which each generation imitates and assimilates, not to our biological heritage, even if we do learn them before we are twelve years old.

And now a word about psychological space. Since Lotze a great deal has been made of local signs; and the psychologist's imagination has shown no end of ingenuity in constructing space maps. In all the important modern authors a great deal of space is devoted to how a space might have grown up. However ingenious these attempts may be and however important pedagogically in robbing psychology of its 'soft' character, I have come to suspect that these constructions are largely artificial, due to a certain psychological atmosphere, rather than an account of the actual genesis of our space coordinations and space feelings. I, for one, can not discover in normal activity any such map, either tactual or visual. I can, to be sure, by a voluntary effort construct in imagination such a picture or map of my body and then localize within it; and I can see how the compulsory construction of such a map in order to understand the so-called psychology of space, especially with sufficient faith in authority, might make such a map a permanent part of our mental furniture. But such a construction is, at most, artificial shorthand, a convenient equivalent or model for describing the actual coordinations. As an account of genesis it is gross mythology, which lacks even picturesqueness.

The ingenious account by Wundt, Titchener and others of the economy of consciousness based upon the above artificial psychological furniture, is of course equally *a priori*. I can not discover even a word except as it is artificially produced or called forth as a result of expectancy. When I catch myself in the act, I do not find anything of the kind. If you say that I have had this content, but that it has disappeared, that at least ought to be proved. The recollection of a previous existence and most any other psychological theory of genesis might be proven in the same way.

At any rate our theories of space must be rewritten largely in biological terms. The coordination of the reactions of the human infant, as in the animal, is primarily an instinctive matter, with the difference that while in the chicken, for example, the coordinations develop largely in response to intra-organic stimuli before birth, in a human being extra-organic stimuli play a much greater rôle. But the coordinations in either case, such as those of walking and the various sense-organs with each other, are organic adaptations. Instinctive tendency with trial and habit is all the machinery we require. If there is any consciousness in this early development, it is probably of the concomitant kind, except as pleasure-pain may serve

to indicate the success or failure of the instinctive tendency. In that case it really becomes an organic factor. In the embryonic stage, in which animal coordination is pretty much completed, we have at least no evidence of consciousness, much less of images or map-building, though the simple organic machinery serves the same purpose. At any rate it is time to stop substituting the might-have-been of later ideational activity for the simple early stages. The chemical terminology of tropisms suggested by Loeb is at least a truer statement of infant reactions and coordinations, as well as many of the adult's for that matter. When we are in a stage to reflect, and so to collect evidence, the principal coordinations which make up our space world have become a motor affair, with at most certain sensational signs.

Again, as regards geometrical space, this is simply a matter of logic. If we choose to make certain assumptions, a logical system can be built upon these. It may be of one, two, three or n dimensions; it may presuppose continuity or discontinuity; it may be qualitative or quantitative. Mathematical space is purely a matter of ideal suppositions and construction, knowing no limits except the laws of thought. It has as many axioms as we choose to have; they may be less or they be more than those of Euclid, though as a matter of nomenclature the question may be raised as to how far the term geometry should be applied to such constructions. They are simply a display of poetic imagination in an abstract field. They are no more the concern of the philosopher than any other products of poetic inventiveness, 'Alice in Wonderland' for example. The attempt to construct a universe out of mathematical concepts is one of the most ludicrous as it is one of the most pervasive of philosophical errors. We need only mention the Pythagoreans, Plato and the Cartesians, not to speak of recent fads.

It may be questioned how far non-Euclidean geometries stand for any special content foreign to the ordinary man. Mathematicians like to mystify us with space worlds altogether foreign to the common understanding. But Poincaré has shown recently that so-called non-Euclidean spaces can always be translated into terms of Euclidean geometry. While Poincaré makes that an argument for the validity of the non-Euclidean systems, it might with better logic, I think, be shown that this preestablished harmony is due simply to the fact that the other systems in so far as they stand for real content are merely abstractions from the Euclidean, and that the mystical bewilderment of four or more dimensions is not due to a peculiar content but to a confusion of terms, dimension being used for certain selected logical relations which have nothing to do with the space concept.

Even making a contradictory or nonsensical assumption, however.

may lead to important logical consequences altogether apart from the validity of the assumption. If you assume that the moon is made of green cheese, logical consequences can be deduced entirely apart from the falsity of the original statement. So, if you assume that in a different universe two plus two equal five, a system of mathematics can be constructed accordingly. The same is true of a space of four dimensions. Whether conceivable or not, if we choose to assume it, a system of geometry can no doubt be deduced from it. It may be no enrichment of truth, yet the logic itself may be unimpeachable. The same may be said of the completed infinite. If you admit infinite quantities, then all our ordinary calculations, based upon finite values, are upset. The half is no less than the whole, and dropping out any number of steps does not affect the number of terms in the series. But while such juggling may impress the uninitiated, the assumption that there are any but finite facts or values should never have been admitted; and then the contradictions would never have occurred. There are series, indeed, which can not be completed and whose sum is predictable; but this is because of the law which governs the series and which is finite, and not because of completing the, by definition, incompletable. If you look at the quantitative and definable side of the series, dropping out terms does indeed make a difference, because here you are dealing with definite content and not juggling with terms merely. So in the series $1 + \frac{1}{2} + \frac{1}{4}$ etc. $= 2$, if you drop out the first term, the series does not equal 2, but 1, and every term dropped thus makes a definite assignable difference. If terms make no difference, that is no sign that you have completed the infinite, but that you have ceased to talk sense.

The critical modern study of geometry, however, if it has thrown no new light on the nature of things, has had an immense value as a solvent in destroying not only mathematical dogmatism, which was the longest to hold out against the critical spirit, but dogmatism as regards other eternal verities as well, which pointed to the axioms of geometry as their type and their warrant alike. The old bulwark of *a priorism* has at last been shattered.

The physical scientist selects among these mathematical models such as will enable him best to manipulate or anticipate his facts. Mathematics thus furnishes a convenient, though artificial, framework for science. Whether this framework is real or not is no concern of the astronomer or physicist. It is at least a convenient tool in marshaling and utilizing his facts.

But the question may be raised: How does mathematics come about its ideals: its straight line, circle, etc.? It was this mystery that converted Plato to the theory of preexistence. It has always played an important part in the theory of innate ideas. All we can

say here is that such a limit as the straight line no doubt has its instinctive or motor basis. It is part of the law of economy and conceivably at least has played a part in race survival, for 'the shortest line,' which is Euclid's motor definition, must, other things being equal, have been economic and given an advantage in pursuit and escape. For us, however, these ideals are posited as limits in the service of the constructive will and have no reality except as we posit them.

Whatever may be the psychological or biological genesis of space, and whatever may be the actual content in connection with our space-coordinations, it may still be insisted that what space *means* is a perspective of coexistent perceptual values. In the service of our purposes, Münsterberg might say, the will constructs its perspective of nearer and farther. It arranges the various perceptual contents with reference to each other within a scheme for its own convenience. This scheme may be a subjective perspective, as when the ego simply arranges the contents with reference to itself as center. In that case nearer and farther have reference to our own subjective purposes or will-attitudes. Or the scheme may be the result of social agreement, a convenient description in the service of purposes which we must share, and such in the end are all the practical purposes of life. In this case mathematical models are substituted for our individual imagery; loci are divested of their purely egoistic reference; different astronomers in different parts of the world, with totally different psychological settings, can direct their telescopes to the same point in the heavens, and different geographers can cooperate in piecing out the map of the earth.

But, whether the point of view be ego-centric or social, such a perspective scheme is phenomenal and not, *as such* at any rate, real. The map of England with its dots and colors, the astronomer's squares and circles, are convenient equivalents for the actual relations or distances, but no one would maintain that they are the real thing. So far from the perspective map and the real space being identical, the ideal construction does not occupy space at all nor does the real will that constructs. Even when perceptual pictures are used, as in the case of the map, the scale has nothing to do with the truthfulness of the map.

With such a space construction I have no quarrel so long as its phenomenal character is recognized. We do find it convenient for certain purposes to construct such a system of artificial shorthand for the real interactions of things. What I would insist, is that such a conception *means* something more than the phenomenal equivalents with which it deals; that it serves to symbolize real externality or distance which the will must acknowledge and for

the sake of which, or to adjust itself to which, it invents its system of artificial equivalents. Such a space conception, then, just because it is convenient, must point to some characteristic of the real in the very necessity for such spreading out, how phenomenal or artificial soever the ideal equivalents may be.

The most brilliant of modern idealists has striven to give this perspective space a real existence in his final conception of reality. In his 'New Exposition of the Science of Knowledge,' space, for Fichte, becomes the 'permanent, absolute contemplation,' "which, however, presupposes itself as absolutely being to itself according to the demonstrated law of the reflection of consciousness. It is the on-itself-reposing, firm glance of intelligence, the resting immanent light, the eternal eye in-itself and for-itself." And again, if you can stand any more such language: "The substantial, solid and resting space is, according to the above, the original light, before all actual knowledge, only thinkable and intelligible, but not visible and not to be contemplated, as produced through freedom." The construction of space is secondary, 'is a taking hold of itself on the part of light, a self-penetration of light, ever from one point and realized within knowledge itself; a secondary condition of light, which, for the sake of distinguishing it, we should term clearness, the act enlightening.' And truly it needs enlightening. But, with such light as I have on the Fichtean conception of space, it becomes for him the self-intuitive eternal system of truth or, which here amounts to the same, reality. It is not merely the type of the eternal, but it is the eternal; not merely the valid, but the real. Perhaps Fichte is right that if we are to translate space into terms of one eternal self-conscious contemplation such must be its meaning. But that loses whatever of meaning space has for us. It reduces it to a mere spaceless eternal view-point.

JOHN E. BOODIN.

UNIVERSITY OF KANSAS.

A NEW LOGICAL DIAGRAM

THE diagram is a non-essential in logic; but the increased tendency on the part of comparatively recent writers towards its use would seem to indicate that it has a decidedly practical illustrative and educational value. Unfortunately all diagrams which have as yet been proposed labor under some more or less serious disadvantage. It is the purpose of this paper to present a diagram which, it is hoped, will prove to be a step towards the desired ideal.

The demands which a satisfactory diagram must meet are few, but vital:

First, there must be a complete symmetrical one-one correspondence between the elements of the diagram, whatever they may be, and the elements of the given logical universe. These latter elements consist of all of the possible combinations of the classes considered, or of their symbolic representatives. This condition demands that the diagrammatic elements, like the symbolic ones, be mutually exclusive and collectively exhaustive. If the diagram is to be of practical utility, it must, by the very nature of its construction, secure complete one-one correspondence automatically for any number of classes; thus relieving the user of all responsibility as to whether every symbolic subclass has its graphical representative in his diagram or not: not a simple matter when it is considered that successive addition of classes involves successive doubling of the number of subclasses.

Secondly, if the diagram is to be practically valuable, it must be simple in construction and appearance, free from any possible source of confusion, readily adaptable to any desired modification of conditions and, in general, its manipulation must be easy, quick and reliable.

Lastly, as the number of classes considered increases, the diagram must keep pace with the increasing symbolic notation with perfect correspondence and simplicity; in one word, it must be 'simply-extensible.'

The shortcomings of the usual diagrams are familiar to all. The Eulerian circles, at their best, are limited to the case of three-class representation, for which, it is true, they serve admirably. The four-ellipse system for four-class representation, as proposed by Mr. Venn,[1] is confusing at first. A five-ellipse system fails to represent five-class combinations; and Mr. Venn's modification creates more confusion than ever. These difficulties were recognized by Mr. Venn, for he questions the utility of such diagrams for extension beyond the five-class case.

The diagram of Dr. H. Marquand[2] comes nearest to satisfying all the conditions; there is no question as to its extensibility and its perfect correspondence; but it has the disadvantage that the elements of a single class are in discrete groups, even in the simplest possible cases, and this involves unnecessary complexity.

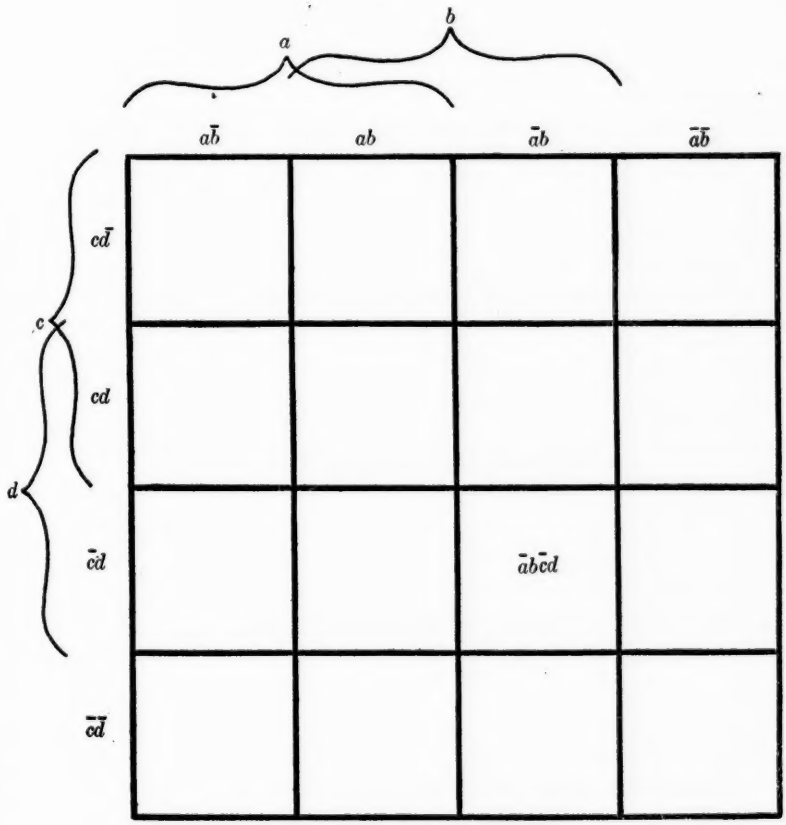
In the design of the following diagram the attempt has been made to utilize the bisection principle and class-group units in a multiple self-representative series so that the result may have the good features of each method without its faults. The unit chosen

[1] 'Symbolic Logic,' p. 116.

[2] *Philosophical Magazine*, October, 1881.

is the four-class diagram,[3] and the geometrical form of it is that of the square, since this figure lends itself most readily to unit combinations of the kind desired; and it has been so subdivided as to be adapted to class representation up to and including seven classes; so that the unit itself will serve the purpose for all ordinary cases. At the same time its manipulation is not so complex as to make it in any degree confusing to the student, and its colligation for extension is of the simplest possible kind.

FIG. 1.



THE FOUR-CLASS DIAGRAM.

The class $\bar{a}b\bar{c}d$ is at the crossing of strips $\bar{a}b$ and $\bar{c}d$.

Let the logical universe be represented by a square[3] (hereinafter referred to as the 'primary' square), divided by vertical lines into four vertical strips, and by horizontal lines into four horizontal strips.

[3] See Fig. 1.

Let class a be represented by the first and second vertical strips, counting from left to right, taken together; and class b by the second and third, taken together.

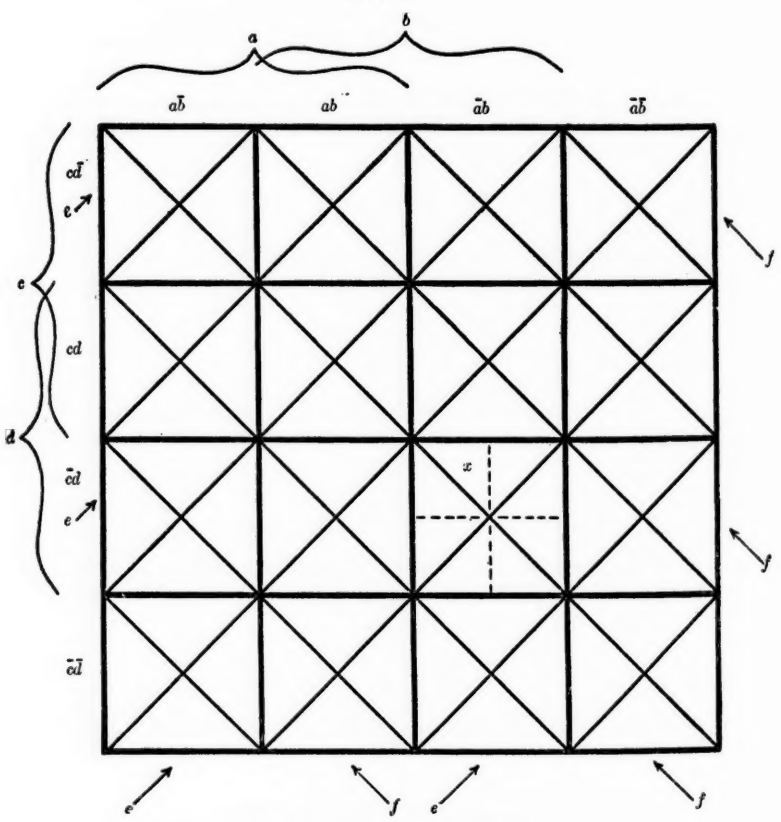
Let class c be represented by the first and second horizontal strips, counting down, taken together; and class d by the second and third, taken together.

Then the individual vertical strips will represent in order $a\,\bar{b}$, $a\,b$, $\bar{a}\,b$, $\bar{a}\,\bar{b}$; and the horizontal strips will represent $c\,\bar{d}$, $c\,d$, $\bar{c}\,d$, $\bar{c}\,\bar{d}$.

Any combination of these pairs of terms may be found at once with great ease, as the particular 'secondary' square representing the logical product under consideration will be at the intersection of the two strips which represent these term-pairs.

This figure is easily constructed, and offers no possible chance for confusion; and the symmetry of the indicative notation makes it easily remembered, and simple in use.

FIG. 2.



THE SEVEN-CLASS DIAGRAM.

The class $\bar{a}\bar{b}\bar{c}\bar{d}\bar{e}\bar{f}\bar{g}$ is at 'x,' and is located by steps in this order: $\bar{a}\bar{b}$, $\bar{c}\bar{d}$, e, $\bar{f}$, $\bar{g}$.

This figure may be adapted to three-class representation by making c a zero class, *i. e.*, erase the upper half of the diagram: and to two-class representation by making d also a zero class, leaving only the bottom row.

To represent the relations of *five* classes, construct the diagram as before for any four of the five classes. Then in addition add to the figure all possible diagonals[4] in *one* direction. Consider these diagonals as sides of diagonal strips, and let one of the two sets of alternate diagonal strips represent the fifth class.

Each secondary square is now subdivided into two triangles, each of which will have the same class-product of a, b, c, d as before; but one of them has this product combined with e, and the other, this same product combined with $\bar{e}$.

The process of locating any of the thirty-two possible subclasses is identically the same as for a four-class product, augmented merely by the choice of two specific triangles to meet a fifth-class demand.

For *six-class* representation,[5] add to the primary square *both* sets of diagonals, and let one of the two sets of alternate diagonal strips represent the fifth class, and one of the two sets of opposite-diagonal strips represent the sixth class.

Each secondary square is now subdivided into four triangles. Classes a, b, c, d determine the secondary square as before; classes e, f determine which of the four specific triangles is to be taken; and the proper subdivision is thus located easily, quickly and with certainty.

A further subdivision of the secondary square by lines through its center parallel to its sides (shown dotted in a typical square in Fig. 2), together with the convention that of the subdivisions of the four triangles the right or upper half, as the case may be, shall represent g, and the other half $\bar{g}$, renders possible the clear representation of the 128 subclasses of the seven classes $a \ldots g$; and the tracing of any given class-product to the proper secondary square, proper triangle and proper half of the triangle is a simple, short and certain process.

To represent more than seven classes, replace each of the secondary squares in the fundamental four-class diagram by a four-class diagram as a unit. The resulting figure[6] contains all possible eight-class combinations, each of which may be located in two similar steps; one to locate the secondary square, now itself of primary form, and one to locate *its* proper secondary square. These latter

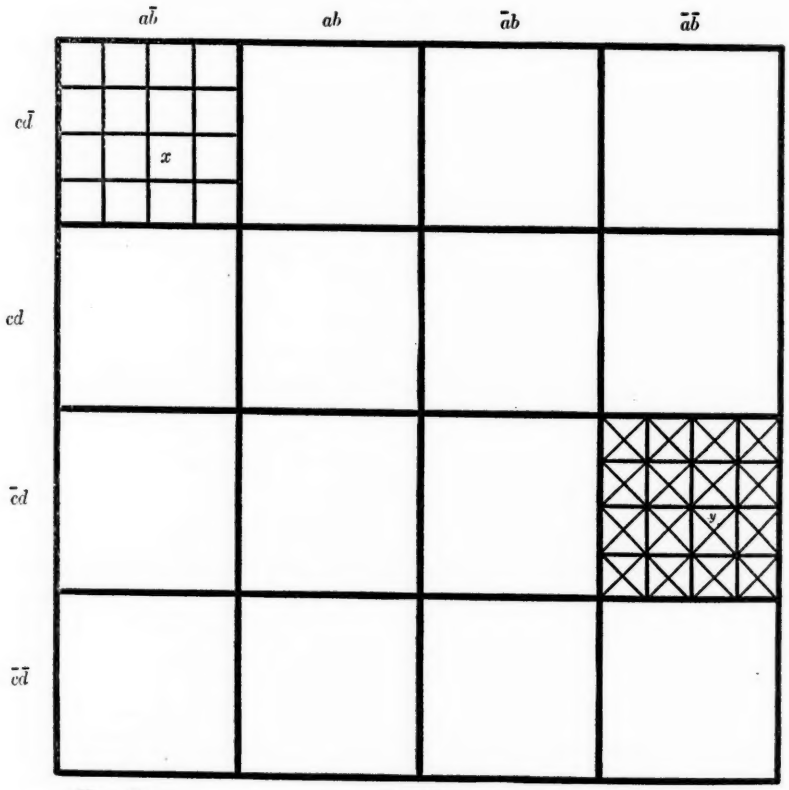
[4] Diagonal bisectors have been introduced in preference to horizontal or vertical ones, to avoid confusion with the existing strips.

[5] See Fig. 2.

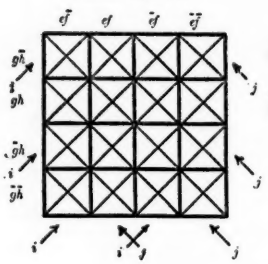
[6] See Fig. 3, x.

squares will be referred to as 'tertiary.' Modifications of the secondary square unit as already described for five, six or seven classes[7] will adapt the entire figure to representation of nine, ten or eleven

FIG. 3.



KEY UNIT. THE EXTENDED DIAGRAM.



The class $\bar{a}bc\bar{d}e\bar{f}g\bar{h}$ is at 'x,' and is located by $\bar{a}b$, $c\bar{d}$ $\bar{e}f$, $\bar{g}h$.

The class $\bar{a}\bar{b}c\bar{d}e\bar{f}g\bar{h}i\bar{j}$ is at 'y,' and is located by $\bar{a}\bar{b}$, $\bar{c}d$, $\bar{e}f$, $\bar{g}h$, i, $\bar{j}$.

classes; after which, replacing the tertiary square by the four-class unit, and its successive modifications, will extend the diagram by a process which is clearly recurrent, and indefinitely continuous.

It will be found a practical advantage for very complex cases

[7] See Fig. 3, y.

to use, for each four-class set, a typical unit as a key, on which its particular four-class notation is marked, rather than to confuse the primary square by a superabundance of class terms; and also on account of the fact that by the use of such a key the actual construction of the complete diagram need be carried out in extreme detail in those portions only to which the conditions of the problem under discussion apply.

From the method of its construction it is evident that this diagrammatic scheme furnishes perfect correspondence for any number of classes. The four-class unit, with its modifications, is simple; and on account of the recurrent character of the extension process, with the use of key units, the manipulation of the diagram never can become more complex than in the seven-class case.

WM. J. NEWLIN.

AMHERST COLLEGE.

DISCUSSION

METAPHYSICS, SCIENCE OR ART

IT is not strange that the imaginative dignity, as contrasted with the scientific worthlessness, of most metaphysical speculation should suggest the essential identity of this philosophical discipline with art rather than with knowledge. The summary verdict which many a student feels compelled to pass upon the great historical systems, such as Plato's, Spinoza's and Schopenhauer's, is: Magnificent, but—untrue. And though narrowness of historical vision, or close personal or literary contact with a living thinker, may lead to enthusiastic discipleship in some distinctly modern doctrine, nevertheless an impartial judgment must ascribe to such doctrine precisely the defects, in greater or less measure, of its predecessors.

If we enter somewhat more into detail, the kinship of metaphysics with art becomes clearly evident. Both are 'self-expression,' *i. e.*, the manifestation of a certain type of personality; both display a ruling idea and a disposition to ignore or pervert facts which do not accord with this idea; both give emotional satisfaction, and this not as a psychical accessory, such as may appear in connection with scientific research, but as an essential feature of the product. What we have presented to us in the metaphysical scheme, as in the work of art, is an imaginative construction which we may appreciate by temporarily detaching ourselves from our surroundings. The world is continually changing in ways which we do not appreciate; art gives us things which do not change, or which change in ways which we

do appreciate. And so idealism, for example, aims to make us appreciate the world as we appreciate a picture, or a musical theme, or a bit of our own thought-life. We sometimes enthusiastically call such appreciation 'understanding,' or 'knowledge,' just as Abt Vogler ejaculates, "'Tis we musicians know." But the fact is that our state of mind is decidedly emotional, that it is not real *know*ledge at all, since our well-instructed fellows reject it in favor of some other theory—but is importantly subjective. Historically, logically and psychologically, then, this resemblance between metaphysics and art is obvious.

Furthermore, that metaphysics is not science, in the ordinary usage of the term, is too evident to be disputed. Scientific conclusions, it is true, enter into metaphysical speculation, but they do not impart their own certainty thereto. Many are the scientific facts about matter, and these are used by both idealist and materialist, but whether matter is fundamentally lumps, or energy, or the phenomenal expression of ideas, we can not say—except in moments of enthusiasm, or as a frankly personal opinion.

Such reasons as the foregoing would induce us to deny to metaphysics the title of knowledge, and to restore its dignity by placing it among the arts. And this appears to be Dr. Gordon's thought.[1] It would seem, however, to do a certain injustice to the intellectual aspects of metaphysics, an injustice which suggests the following comments.

The purpose of metaphysics is the purpose of science, not the purpose of art. The metaphysician aims at the discovery of truth; the artist at the production of beauty. The one constructs an idea which, he hopes and believes, correctly represents reality; the other makes a reality which expresses an idea. If a painter said, "Compare my canvas with my model and observe its accuracy," both he and the observers would ignore its primary esthetic significance, for copying, as such, is not art; but this is precisely what the metaphysician does and must say. He may be an artist, and may consciously or unconsciously introduce the art spirit into his thinking,

[1] See this JOURNAL, Vol. III., No. 14. Her assertion that 'metaphysics, from the standpoint of its practical effect, might be classed more fitly as an art than as a science' (p. 365) is ambiguous. The qualifying phrase suggests that there is another standpoint, and her use of the term 'science' leaves it unclear whether or not there is another kind of knowledge, to which metaphysics might lay claim. I suppose, however, that the important test for her is pragmatic, that her estimate of the epistemological value of metaphysics is based on its practical effects. Of course if the question concerns simply the existence of an art-character in metaphysics, it must be answered in the affirmative, but if there is an implication that metaphysics is not knowledge in any sense whatever, there is room for discussion.

but his purpose is to make a mental copy of reality in its important features and principles, and the thing has metaphysical worth only as it is a correct copy.[2] Neo-Platonism and Fichteanism have remarkable esthetic features, but what we, as metaphysical students, seek to learn is the extent to which they correctly set forth the structure and mode of development of reality. Any such scheme is tested by the question, Is it true? Indeed, it aims to tell the truth whether pleasant or not, and the honesty of its purpose is rewarded by the supreme and peculiar satisfaction which belongs to the pursuit of truth. The artist, on the other hand, frankly seeks to please, and his works, *as art,* must submit to test by standards of beauty, whatever these are. So great an artist as Browning is justly criticized for the disagreeable roughness of his versification. Of course particular works of art may be judged from other points of view, as in the case of moral criticism of realistic fiction, but such criticism is not esthetic. Hence while metaphysics may possess art qualities, these are not its primary motive, and therefore do not serve to identify it essentially with art.[3]

Passing to the psychological analysis of metaphysical concepts, *e. g.,* unity, possibility, etc., into motor attitudes and functions, the question before us is: Does such analysis show that these concepts are esthetic rather than scientific? Our answer must meet the following difficulties. Many of these concepts are common property of philosophy and science. Does the difference of usage have a correspondent difference of motor expression, and if so, what is this difference? It must be generic, to match the distinction between art and science, and hence we would naturally expect to find it, as Dr. Gordon suggests, in the emotional tone of metaphysical ideas. This theory, however, is not well supported by introspection, since speculation, upon the nature of time or space for instance, may proceed without other emotional consciousness than satisfaction in the search for truth, while on the other hand the botanist's delight in discovering the unity of plant species may be strongly felt. It is probably true, as I have already said, that there is a peculiar satisfaction in the completion or possession of an all-embracing scheme of things, but such satisfaction does not appear identical with the appreciation

[2] I am aware that the word 'copy' gives offense to many epistemologists, but this consideration seems final: If a thought and the object of that thought are distinct in any sense whatever, then the term, figurative if you please but indicating a fact, is justified.

[3] "The ultimate aim of the scientist is always to convince some one, that of the artist to interest and move some one" (p. 367). But metaphysicians, almost without exception, have been teachers, and so would seem to belong to the first class. My personal contact with such teachers convinces me that their primary aim is not to interest or move except in an intellectual way.

of beauty, nor sufficient to place metaphysics among the arts rather than in the domain of science. Accordingly, Dr. Gordon's analysis and simple reference to the James-Lange theory do not explicitly support her contention.

The assertion that metaphysical doctrines make 'no difference immediately for overt action,' but do make 'a difference in sentiment, mood or disposition' (p. 370) is puzzling. A mood or disposition expresses itself definitely in conduct, so that overt-ness is hardly available as a criterion, but marks rather our subjective limitations of perception. Apart from this fact, however, metaphysical beliefs often result directly in open action. Animism produces multitudinous acts; Christian Science—which is certainly metaphysics rather than science—has a very definite practise; religious worship, or the abstinence from it, may be the outcome of genuine metaphysical inquiry. Moreover, there is a very well-established opinion that science itself depends upon metaphysical presuppositions. When we examine our daily lives we find that many of our acts are, not works of art, nor mere discharges of emotion, nor applications of scientific facts, but expressions of metaphysical instinct, or results of metaphysical speculation. That is to say, we have genuine reasons, good or bad, for what we do; and these reasons are corollaries of our metaphysics. It may be said that they are emotional in character, and this is true, but it is also true that all conscious motives are more or less emotional, and therefore that the presence of emotion does not disprove the connection between metaphysical belief and conduct. Whether action follows from a broad or fundamental principle that we call metaphysical, or from a narrow, specialized principle that we call scientific, depends upon circumstances, but in either case there may be a genuine intellectual basis. Hence the distinction on grounds of practical effect seems questionable. And finally, the charge that Augustine's solution of skepticism and Kant's ethical prescription have no result upon overt action seems to me in the plainest contradiction to facts. Do we not know that a respect for law in general may issue in conduct with stern and terrifying effect?

Metaphysics, consciously pursued, is an attempt to be scientific on a large scale. The magnitude and profundity of its task differentiate it in many ways from science, and, in particular, offer a temptation to substitute an imaginative symmetry, with details which look well, for a strict and tedious adherence to facts. But the purpose of speculation is knowledge, and if it is carefully done it secures some truth. Its resemblance to art is accidental and superficial; its kinship with science is generic and fundamental.

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REVIEWS AND ABSTRACTS OF LITERATURE

The Nature of Truth. HAROLD H. JOACHIM. Oxford: Clarendon Press. 1906. Pp. 182.

Of all the animals that creep and breathe upon the earth man is the most iconoclastic—because he is also the most iconoplastic. He is ever engaged in forming ideals for his delectation and worship, and continually discovering his worship to be idolatry and shattering his own creations.

The reason for this absurdly wasteful procedure is always the same. The ideal has been constructed, the idol has been set up, too uncritically. Too little care has been devoted to the foundations of the ideal to build upon them an enduring structure. The requirements which an ideal must satisfy have been ignored. Yet these requirements are simple. They may be formulated as follows:

1. The ideal must be attainable by a thought which starts from our actual human standpoint.

2. When constructed it must be relevant to actual human life.

3. The ideal must be realizable by the development of man's actual life.

4. Yet it must have 'independent' authority over actual human life.

Or, more briefly, the ideal must (*a*) *be an ideal for man,* and yet (*b*) *have authority over man.*

Unless the first condition is complied with, it is evident that the ideal will be the arbitrary creation of a fancy which uses the actual only as a jumping-off place into cloudlands and dreamlands. And any ideal, which is arrived at thus *per saltum,* is bound to reveal its illusory nature so soon as an attempt is made to *get back* from the ideal to the actual, *i. e.,* to *apply* the ideal to human life. We then find that we *can not* get back from the standpoint of the ideal; with its glamour in our eyes the actual seems hideous and distorted, alien and unintelligible. Whereat, enraged, we may feel tempted to pronounce it radically false and vicious and to build out our 'ideal' into a veritable paradise of fools.

Unless the second condition is complied with, our ideal becomes nonfunctional, and therefore really meaningless. A real ideal for man must be applicable to the world of man's experience. An ideal which is not so applicable is no ideal for man, even though it might entrance angels and redeem absolutes. And clearly an ideal which has been reached by a jump is pretty certain to prove thus inapplicable. As it was not reached by a gradual approach from the actual, it can not return to the actual world and enlighten its gropings. It owed its being to invalid fancy; it owes its application to an irrational fiat.

Unless the third condition is complied with the ideal loses its compelling power. The impossible is no source of obligation, no center of attraction; nor is it rational to aim at its attainment. The notion that an ideal would not be an ideal if it were realizable is a false inference from the fact that ideals are progressive, and expand as actuality ap-

proaches the level of what once seemed the ideal. It overlooks the fact that throughout this whole process the ideal has to be conceived as essentially realizable. If this belief in its possibility failed us, our devotion would at once be stultified.

It is, however, to the fourth condition that the other three have usually been sacrificed. Ideals have been unnaturally projected into a non-human sphere, they have been rendered inefficacious and impossible by being dissociated from human life, in order to guarantee their independence and to enhance their authority. That this procedure is self-defeating has already been explained. It may be shown also to rest on radically false conceptions of the authority and 'independence' of ideals. Their 'authority' must not be conceived as imposed on man; it must be freely constituted and recognized by him. Nor can their 'independence' be conceived as absolute; it can not mean absence of relation to human life. It can at most be relative, a tentative simplification of the actual facts, an exclusion of this or that unimportant circumstance, of this or that discrepant desire, of this or that discordant claim. But to set up an ideal *wholly* independent of terrestrial conditions, human psychology and individual claims, to argue that because experience shows that *some* such features may be set aside, all may in a body be excluded *a priori*, seems merely to exemplify the fallacy of 'composition.' It should never be forgotten that in any actually working ideal the 'independence' is functional, and strictly limited to the sense and extent which efficacy requires.

I

These reflections have not been wholly inspired by Mr. Joachim's interesting and instructive essay, but they find in it abundant illustration. It is always an affecting spectacle to behold the good man conscientiously practising the idol-breaking art upon the idols of his soul, but the total failure of Mr. Joachim's investigation of the nature of truth, which he himself confesses in such handsome terms (pp. 171–180), might have been predicted by any one who had examined the functioning of human ideals.

Mr. Joachim has courted failure by the fundamental assumptions which pervade his ideal of truth.

1. He has assumed that the 'critical' question is out of date. Nowhere does he betray any consciousness of the need for asking, "How can I know all this that I have assumed? How are the facts assumed compatible with my knowing them?" He has not in consequence raised the question how his ideal was arrived at.

2. He has thereby been enabled to assume an impossible standpoint, without realizing until it was too late that nothing could be said from it that was in the least degree relevant to the facts of human life. Assuming that 'the nature of truth' concerned 'the character of an ideally complete experience,' and not the actual procedures of human minds, he inevitably lays it down that "there can be one *and only one* such experience: or only one significant whole, the significance of which is self-contained in the sense required. For it is absolute self-fulfillment, *absolutely* self-contained significance, that is postulated; and nothing short of abso-

lute individuality—nothing short of *the* completely whole experience—can satisfy this postulate. And human knowledge, not merely *my* knowledge or *yours,* but the best and fullest knowledge in the world at any stage of its development—is clearly not a significant whole in this ideally complete sense. Hence the truth is—*from the point of view of the human intelligence*—an ideal, and an ideal which can never *as such,* or in its completeness, be actual as human experience."[1]

3. Having assumed such an ideal, he is compelled to abstract as far as possible, from everything human, real and concrete. But ultimately this abstraction proves impracticable, and when at last his conception of truth is brought into contact with the fact of human error, its breakdown is as irretrievable as it was inevitable: for it is the collapse into its interior emptiness of the bubble of a false ideal under pressure from the real it had scouted.

That Mr. Joachim has really made all these assumptions can be made plain in his own words. Thus, (1) he describes on p. 178 his assumption of the standpoint: "That the truth itself is one and whole and complete, and that all thinking and all experience moves within its recognition and subject to its manifest authority; this I have never doubted." Perhaps if he had been more willing, not necessarily to doubt, but at least to examine, this assumption, he would not have been forced to doubt so much in the end. For it was decidedly uncritical thus to rule out the question of whence came the features in the ideal he postulated. It was also by definition that he ruled out the conception of truth as a *human* ideal. Hence it was quite superfluous to state in the preface that he was not going to discuss the humanist conception of truth. He could not: from his point of view the humanist position was invisible, and was bound to seem 'a denial of truth altogether.'

From Mr. Joachim's standpoint human knowing could not possibly appear as anything but an inexplicable falling away from the serenity, purity and perfection of 'the Ideal,' as 'unreal abstractions' which it is his duty 'to do his best to discredit' (p. 59). Or, as he says more fully (pp. 167–8), "The differences of *this* and *that* knowing mind—*a fortiori,* the confused mass of idiosyncrasies which together distinguish *this* 'person' or 'self' from *that*—are recognized only to be set aside and, if necessary, discounted. They are accidental imperfections, superficial irregularities, in the medium through which truth is reflected; limitations in the vessels through which knowledge is poured. They are, so to say, bubbles on the stream of knowledge; and the passing show of arbitrary variation, which they create on the surface, leaves the depths untroubled—a current uniform and timeless. My and your thinking, my and your self, the particular temporal processes, and the extreme self-substantiation of the finite 'modes' which is error in its full discordance:

[1] Pp. 78–9. The ideal described is clearly not an ideal for man. And, naturally, Mr. Joachim finds the resources of human language inadequate to describe it. Cf. p. 83, n., where he declares that though he calls it 'experience,' the word is 'unsatisfactory,' and that he uses it only because 'God' would be 'misleading,' and 'the Absolute' and 'the Idea' have become bywords.

these are incidents somehow [!] connected with the known truth, but they themselves and the manner of their connection are excluded from the theory of knowledge."

The theory of knowledge, then, 'studies the known truth qua timeless and universal' (p. 168), and the judgments of science can not be "concerned with the concrete thinking of the individual mind qua 'this' or 'that,' qua differentiated by the idiosyncrasies developed through its particular psychological history" (p. 93), 'in all the accidental and confused psychical setting' (p. 115).

Or lastly and most frankly (p. 118), "I do not inquire how the logician can pass from the 'psychological individual' to the 'logical subject,' from *this* actual thinking (with all its psychical machinery and particular setting) to the thought which claims truth as affirming universal meaning. The logician, I am convinced, never really starts with *this individual thinker* in the sense supposed; and, if he did, the passage from this psychological fiction to the subject of knowledge would be impossible."

It is clear that Mr. Joachim at any rate has never started with 'this individual thinker,' but equally so that he never gets to him. He has assumed his 'logical' standpoint, and never doubts, even when it proves unworkable, that the discrepancy of psychical fact is mere irrelevance and confusion. "We have been demanding all along," he says (p. 82), "an entire reversal of this attitude" (of starting from the actual). "In our view it is the Ideal which is solid and substantial and fully actual. The finite experiences are rooted in the Ideal. They share its actuality and draw from it whatever being and conceivability they possess. It is a perverse attitude to condemn the Ideal because the conditions under which finite experiences exhibit their fragmentary activity do not as such restrict its being, or to deny that it is conceivable, because the conceivability of such incomplete expressions is too confused and turbid to apply to it."

II

What, then, is this standpoint of the Ideal? Page 76 tells us that "Truth in essential nature is that systematic coherence which is the character of a significant whole. A 'significant whole' is an organized individual experience, self-fulfilling and self-fulfilled. Its organization *is* the process of its self-fulfillment, and the concrete manifestation of its individuality."

Brave words, if only the standpoint of the 'the Ideal' could be maintained, and the 'individual thinker' be wholly dismissed from the inquiry! Unluckily he can not.

The tree of knowledge can not be guarded against human profanation, even in the logician's paradise, once it is 'somehow' revealed to man. Nay, the logician is ultimately driven out by the diabolical machinations of 'the dual nature of human experience,' which has 'its universality and independence and yet also its individuality and its dependence on personal and private conditions' (p. 29). "Truth, beauty, goodness are timeless, universal, independent structures; and yet also it is essential to them to be manifested in the thinking of finite subjects, in the actions

and volitions of perishing agents" (p. 163). They "appear in the actual world and exist in finite experience . . . and their life (at least on one side of itself) is judgment, emotion, volition—the processes and activities of finite individuals. Truth, if it is to be *for me,* must enter into my intellectual endeavor," however 'independent' it is 'of the process by which *I* come to know it' (p. 21).

No wonder 'human experience' is 'paradoxical' (p. 23), and in the end its 'dual nature' is too much for 'the Ideal.' It has no room for error; and yet error inexplicably exists. Thus error becomes the 'declaration of independence' of the finite, something utterly 'unthinkable' 'where that which declares is nothing real and nothing real is declared' (p. 163).

And so 'the ideal' of 'coherence' 'suffers shipwreck at the very entrance of the harbor' (p. 171). "It must render intelligible 'the dual nature of human experience'" (p. 170); it fails to meet 'demands' which 'both *must be* and *can not be* completely satisfied' (p. 171). And so the whole 'voyage ends in disaster, and a disaster which is inevitable' (p. 171).

It would be ungenerous in those who declined to commit themselves to the ill-found craft which Mr. Joachim has gallantly navigated to foredoomed failure to crow over this catastrophe; but it is permissible to point out *why* it was inevitable from the first.

The whole ideal, despite its protestations of 'concreteness' and aspirations towards a 'self-fulfilling individuality,' rested all along on an unjustified abstraction from the most essential features of the only knowledge and truth we are able or concerned to attain and examine. As Professor Stout says,[2] "The only knowing with which we are primarily acquainted is knowing on the part of individuals, of empirical, historical selves." All actual truth is human, all actual knowing is pervaded through and through by the purposes, interests, emotions and volitions of a human personality. Mr. Joachim had no right to treat these facts as distorting disturbances: they are the roots of the tree of knowledge. He had no right to treat knowledge as if it were impersonal: the 'personal equation' is never really eliminated even in science, and in philosophy the attempt to abstract from its all-pervasive influence stands self-condemned. He had no right to assume that to take our knowledge in its full concreteness would be fatal to its 'objectivity'; he should have studied how men proceed from individual judgments to social agreements about truth, and ultimately construct ideals which are intended to guide our aspirations, but are at once bereft of their significance when they lose touch with human knowing.

Mr. Joachim has had, of course, to pay the penalty of these uncritical assumptions. He has failed to describe anything at all resembling the actual processes of human knowing. He has failed equally to portray the operations of science. He has failed even to render his abstract ideal self-supporting: it crumbles under its own weight; for all its claim to

[2] *Aristotelian Society Proceedings,* 1905–6.

absoluteness it possesses no authority; for all its aspiration to 'coherence' it does not cohere, even in itself.

These defects, moreover, are closely intertwined. Because he has assumed the absolute standpoint and abstracted from the personal context of every judgment, he can never seize the actual meaning of any judgment. He can not see that it lies in the use of the judgment, in its relation to a cognitive end, in its adjustment to a particular case, in its satisfaction of a need. By ignoring (what is obvious from the opposite point of view) that meaning depends on purpose and demands application, he has restricted himself to potential meaning, and moves in a world of impotent phantoms. It is only in such a phantasmagoria of depersonalized, hypostasized abstractions that truth can appear timeless and unalterable, that judgments can *bear meaning in isolation* (p. 90), and *are* possessed of a 'truth' which *they* 'affirm' and 'demand' (p. 108–9), that thoughts move and live and expand out of space and time (p. 176).

III

The truth is that the 'concrete universal' of Hegelism is in no respect what it pretends to be. It is not concrete, because it is a rank abstraction, having manifestly abstracted from the process of knowing which it claims to represent. It is not a true universal, because it is not particular and repels particulars as irrational and confusing. Whereas *the 'universals' which are really functional and are used in actual knowing are always particulars, i. e.,* they are applied to a *'this'* in a *'here'* and *'now.'* Hence the Hegelian 'universal' never occurs either in ordinary or in scientific knowing. The 'universals' ('laws') of the sciences live only in their application to particular cases; they try to formulate the habits of things, and are intended to be rules which guide us in our treatment of them. It is, therefore, the less important half of the truth to assert (p. 110) that 'scientific thought moves in universals' and that "in the science of botany a judgment of perception like 'this tree is green' finds, *as such,* no place." For the universals are *applied* universals, and the science of botany would be valueless if it did not deal with the behavior of particular trees, and it would not value the more abstract judgments if they did not show their 'pragmatic' power by applying to a greater number of 'particulars.' Our scientific procedure gives no sanction whatever to the notion that universals which can not be applied have any value.

The Hegelian 'universal,' however, not merely misrepresents the scientific 'law'; it no less distorts our vision of the 'particular.' An abstraction itself, it constructs the bogey of 'the individual mind,' presumably in order that something more monstrous than itself may deter us from acknowledging plain facts. But its 'individual mind' is a figment, formed by expunging all values from the concrete mind. In actual minds the values are all present, *as psychical facts,* with the ideals and the idiosyncrasies, all capable of contributing harmoniously to the conservation of the individual life. There is no occasion or temptation, therefore, to oppose 'particular' to 'universal,' and to reject any of the mind's

actual contents as 'accidental,' 'irrelevant' or 'confused.' For one, that is, who really starts from the 'finite experiences.' But it is only an amiable delusion of Mr. Joachim's to imagine that he has tried to do so (p. 115). His assumption of 'the ideal' has really incapacitated him from describing human experience as it is. He has in reality dissevered it into a part which is (to his thinking) superhuman, and another which is despicable, if not bestial. But the two will not cohere, nor even come into contact, and between them his theory of knowledge founders.

In other words, Mr. Joachim has contrived to reopen an old wound that was never really healed. In every absolutist theory of knowledge, when it is really thought out to the end, there is and must be a dualistic chasm gaping between the 'human' and the 'absolute' aspects of truth. Across this chasm there is no bridge; but the mystic often fancies that he can be wafted across it on the wings of desire. Mr. Joachim is too sceptical and too honest to play such tricks, but the old mistakes have conducted him to the old *impasse*. Once more the ideal has been severed from its roots in the real; once more it has been incited to transcend our experience; once more it has refused to return to earth and to redeem it. It is vain to protest (p. 62) that 'a universal is not another entity existing alongside of its particulars.' He himself has made it such, by refusing to conceive it as human and as humanly inhabiting them.

If he will not conceive the universal as a human instrument, as existing in and for its use, if he will insist that it must be 'independent,' it *must* be so exalted as to lose all real significance for us. Thus the old Aristotelian protest against the Platonic idea has still to be reiterated against the Hegelian universal. If it holds aloof from human knowing, it manifestly fails, because it becomes a vain duplication, which has no meaning or interest for us: if it essays to deal with human knowing, it becomes an inhuman monster which tries to absorb the human and, still more manifestly, fails, and then revenges itself by abusing and depreciating us. In neither case can the human and the ideal be harmoniously combined, or their 'duality' overcome. But this duality was produced by the initial assumption of a non-human standpoint; if the inquiry had commenced by investigating how 'truths' are verified and errors detected, no 'duality' need ever have arisen to bar the way.

IV

I have devoted myself so far to the discussion of Mr. Joachim's standpoint, partly because strict scrutiny of fundamentals is what philosophy at present stands in need of most, partly because it really implies the highest praise that could be bestowed on Mr. Joachim's essay. For it means that having assumed his standpoint, he has worked out its implications with consistency and rigor to the bitter end. Indeed, it seems to me that of all the writers of the Hegelian school he has most firmly grasped their central problem, most honestly faced their difficulties, most clearly shown what their doctrines really mean and to what they really lead. That his conclusions should be welcome to all (or even to any) of the members of the school is not, perhaps, to be expected; but it is no

slight service to philosophy to have set the issue in so clear a light. Other philosophers, who stand remote enough to enjoy the light of Mr. Joachim's criticism without being scorched by its fire, will appreciate that service at its true value. The humanists, in particular, will derive much instruction from the uncompromising and almost inhuman expression Mr. Joachim has given to an attitude diametrically opposed to theirs. They will note with satisfaction how close is the parallel, and how complete the antithesis, between him and them on all essential points, and regard this as testimony to the inner consistency of rival views whose divergence springs from different answers to the same question. They will rejoice that Mr. Joachim has unequivocally said a multitude of things they had long suspected their opponents of believing, and desired to see stated in cold print. Nor will they have any reason to regret the negative outcome of Mr. Joachim's labors. On the contrary, the more extensively it is recognized as the final breakdown of intellectualistic attempts to explain 'how knowledge is possible' without regard to the actual functioning of knowledge in human life, the better they will be pleased.

In view of the fundamental value of Mr. Joachim's work it seems ungracious to allude to secondary blemishes. But it is not easy reading, and the author has provided no analysis of the argument and only a scanty index. It is a pity that instead of starting from the simplest form of the 'correspondence-with-reality' view of truth, he has altogether omitted to mention it. For it is in its *sensationalistic* form, as referring thoughts to the test of perceptions, that this view is most plausible and least inadequate. Indeed, apart from ulterior interpretations, it is plainly descriptive of processes which actually occur in our knowing, and is not so much false as incomplete. Again, one feels that the most consistent attempt to work out the notion of the 'independence' of reality on intellectualistic lines, *viz.*, that made by Mr. Bertrand Russell and Mr. G. E. Moore, is rejected rather than refuted on pp. 51–5. At any rate, the objections urged against the theory seem to press equally upon that to which, in spite of its collapse, Mr. Joachim remains attached: the fundamental assumption is the same for both, *viz.*, that experiencing ought not to make a difference to the facts; so is their fundamental difficulty, that of getting this 'independent' truth into relation with human minds after it has been postulated.

This, indeed, would seem to be the conclusion of the whole matter: when we find the logic of Mr. Joachim and Mr. Russell failing just where that of Mr. Bradley had failed, and just where its failure was predicted,[3] when we find logicians plunging deeper and deeper into the quicksands of scepticism, when inference becomes a 'paradox' and a mystery comparable with those of theology, when our reasoning has to be treated as either 'irrational' or extra-logical, and when we contrast the fact to which Professor A. W. Moore has justly drawn attention,[4] that all the time our actual knowledge is growing and progressively ameliorating the

[3] Cf. 'Humanism,' p. 48.

[4] 'The Functional *versus* the Representational Theory of Knowledge in Locke's Essay,' Ch. 1.

lot of man, is it not high time that we should stop and bethink ourselves of a possible alternative to a course which is both fatal and ridiculous? Has not the time come when Kant's 'Copernican change of standpoint' might at last be put through seriously, and when truth, instead of being offered up to idols and sacrificed to 'ideals,' might at length be depicted in her human beauty and simplicity?

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Il sentimento imperialista. GIOVANNI AMADORI VIRGILJ. Milan: Sandron. 1906. Pp. xxii + 340.

In this volume the author attempts a 'psychosociological' study of the imperialistic tendency manifested in the German and Anglo-Saxon peoples. The aim of the study is simply to present in full detail the actual sources and factors, economic, political and emotional, which make the phenomenon of imperialism what it is.

In an introduction an analysis of 'collective mentality' and a description of the author's method are given. Considerable preliminary attention is given to the relation between individual and social ideas and 'energies.' The body of the special study falls into three parts: (I.) The essence of imperialism, as a phenomenon; (II.) The causes of imperialism; (III.) The power of imperialism.

What merits the attention of the psychologist in this work, whose theme belongs to the sociologist, is the purely psychological form of description and analysis. The author uses the traditional trinity of feeling, idea and will together with Ribot's concept of 'affective logic' as criteria for distinguishing social factors and types of social activity. The elaborations indulged in may strike the reader as superfine and unnecessary, in so far as explaining the nature of the imperialistic tendency is concerned. These may well be pardoned, however, when one notices the keen descriptions of the really important factors, such as the Teutonic temperament, the growth from nationalism through racialism to an as yet unattained humanism, the changes in ethical and religious concepts, and so on.

The writer describes the general tendency of imperialism thus: "Firstly there arises the simple desire of empire, then the concept of altruism (as an affective logical reinforcer or justification), and, finally, the concept of religion appears" (p. 68, etc.). Each stage is induced by special causes, both intellectual and economic. Imperialism is the opposite of socialism, being the feudal idea in a new form. Inasmuch as so many politicoeconomical factors are involved in demonstrating these conclusions, detailed criticism would be out of place here. The author's facts and theories about the social mind, however, have considerable interest for the psychologist, while the analyses of ethical problems arising in and through imperialism are highly suggestive to the ethicist.

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COLUMBIA UNIVERSITY.

JOURNALS AND NEW BOOKS

VIERTELJAHRSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOZIOLOGIE. March, 1906, Band 30, Heft 1. *Ein Beitrag zur Erkenntnis der sozialwissenschaftlichen Bedeutung des Bedürfnisses* (pp. 1–48): S. KRAUSS. – The position is carefully developed that the basis of the materialistic interpretation of history is an uncritical conception of causation corresponding to equally uncritical notions of individuality and environment. After all, the essential condition of demands or needs is the individual, who is the independent source of his own acts. Each cultural need, again, has an independent status, so that on it the rest depend, in ways genetically determined. *Ueber die Bedeutung des erkenntnistheoretischen Solipsismus und über den Begriff der Induktion* (pp. 49–71): R. v. SCHUBERT-SOLDERN. – Every object stands both in a solipsistic and in a causal order. The solipsistic view is essential to all epistemology, and is not escaped by Schuppe, Avenarius or Mach. It distinguishes, therefore, every philosophy and thereby infects the root concepts of all the so-called inductive sciences. *Die introspektive Methode in der modernen Psychologie* (pp. 72–114): H. REYBEKIEL-SCHAPIRO. – An analysis is given of the views of Brentano, Comte, Erdmann, Behmke and Wundt, with criticisms. In general the author distinguishes between inner perception and self-observation, and discredits the former because of its fragmentary character, the latter because of its falsifying tendency. Both are to be supplemented by experiment, and with it constitute the only psychological method of observation. *Besprechungen:* W. Schallmayer, *Vererbung und Auslese im Lebenslauf der Völker:* S. R. STEINMETZ. W. Pater, *Plato und der Platonismus: übertragen:* A. AALL. H. Gomperz, *Die Lebensauffassung der griechischen Philosophen und das Ideal der inneren Freiheit:* A. AALL. *Selbstanzeige:* L. Dilles, *Weg zur Metaphysik als exakter Wissenschaft,* II. *Zeitschriften.*

Baldwin, James Mark. *Thought and Things* or *Genetic Logic.* A Study of the Development and Meaning of Thought. Vol. I. Functional Logic, or Genetic Theory of Knowledge. London: Swan, Sonnenschein & Co.; New York: The Macmillan Co. 1906. Pp. xiv + 273. $2.75.

Cassirer, Ernst. *Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit.* Erster Band. Berlin: Bruno Cassirer. 1906. Pp. xiv + 608.

Frost, Walter. *Der Begriff der Urteilskraft bei Kant.* Halle: Max Niemeyer. 1906. Pp. 136.

Hooper, Charles E. *The Anatomy of Knowledge: an Essay in Objective Logic.* London: Watts & Co. 1906. Pp. 226. 3s. 6d.

Luquet, G. H. *Idées générales de psychologie.* Paris: F. Alcan. 1906. Pp. vii + 295. 5 fr.

Schiaparelli, G. *Astronomy in the Old Testament.* Authorized English translation, with many corrections and additions by the author. Oxford: The Clarendon Press. 1905. 3s. 6d. *net.*

NOTES AND NEWS

THE *Athenæum* for August 11 summarizes as follows an article of exceptional interest on one of the Congolese tribes, which appeared in a recent number of the Belgian Royal Geographical Society's journal and which has now been separately republished: "The Upotos live on the northern bank of the Congo, between Ikonmango and Dobbo, or between the twentieth and twenty-second degrees of east longitude, and the writer, M. Lindeman, resided among them for several years. His description proves that he studied their customs and folk-lore very closely. The Upotos seem to have long resided in the region now occupied by them, and they show a marked disinclination to quit it. They live chiefly by fishing, and one of the first things to strike a visitor is that certain fish are reserved for the men, others for the women, and yet a third kind for the slaves. These slaves are chiefly slaves by birth or men sold for their debts. They are well treated, and opposite Iringui is an island in which all slaves who are incapable of working are allowed to reside by themselves. One form of semi-servitude is called *lisokko*. This is when a man, not having money to buy a wife, sells himself to a chief to obtain one. The offspring of such a marriage become the property of the chief. One very curious custom is that a man may never look at his mother-in-law. If he does, he has to pay her a fine of 30 to 50 *mitakkos*, which are brass rods equal to a half-penny. Neither must the mother-in-law look at her daughter's husband, but M. Lindeman omits to mention the penalty. Children are treated with great kindness, and in fact spoiled. Their mothers do not chastise them even if the children strike them. Among the duties of the women is that of shaving their husbands. The chief amusements are singing, dancing, and wrestling matches between villages. The victors are painted red; so also are corpses before burial, but in the case of women it is not the bodies, but the coverings in which they are wrapped, that are so colored. Circumcision is practised. The Upotos believe in life after death, and in spirits. They think their dead relatives and friends are always watching them, although they can not be seen. Their god is named Libanza, and M. Lindeman gives a long and interesting description of Upoto mythology. Their account of the origin of the white and black races is curious. Libanza sent his son Tserenga on earth to see what the races of mankind were doing. Among Europeans he was well received, so he gave them a white skin and much knowledge, but among the Africans he was badly received, so he left them black and stupid. One of the myths entertained by this people is that the Congo and its many tributaries were created by the tears of the tribes weeping for a favorite chief long ago. The moon is supposed to be an immense ship engaged in conveying the souls of the dead to Libanza; and the stars are the eyes of the dead, who sleep during the day. As a rule negro myths have seemed devoid of general interest, but M. Lindeman has made a most interesting incursion into those of the Upotos."

THE *Nation,* September 6, contains the following: "Admirers of Thomas à Kempis can not fail to be interested in J. P. Arthur's translation of his lives of Gerard Groote and his followers, and his 'Chronicle of Mount St. Agnes' (London: Kegan Paul). Mr. Arthur has called his rendering of the lives, 'The Founders of the New Devotion,' the New Devotion being the name given to the religious movment started in Holland by Master Gerard Groote (Gerard the Great) in the latter half of the fourteenth century. Gerard's object was the restoration of piety and morals, then sunk grievously low, and partly with this view he and his disciple, Florentius Radewin, planned the formation of societies known as 'Brotherhoods of the Common Life,' the members of which were to live together, but without taking vows, to support themselves by their own labor, and to devote much time to prayer and work for the poor. Sisterhoods were also formed on the same pattern. That these communities might not lack advice and assistance, regular monasteries were also founded. Among the earliest were those of Windesheim and Mount St. Agnes, near Zwolle. This latter à Kempis entered as a young man, having received his previous training at the town school at Deventer, where Florentius and the house of the Brotherhood of the Common Life exercised great influence. A special interest thus attaches to Thomas's account of the Brothers and their institutions, and it is not a little surprising that his works on the subject have only now been rendered into English. The Rev. S. Kettlewell in his 'Thomas à Kempis and the Brothers of the Common Life' contented himself with translating selected passages."

WE quote the following from the *New York Evening Post* of September 18: "The rector of the past academic year in Berlin, Professor Hermann Diels, at the close of his official career as head of the university, delivered an interesting discourse on the subject of the International Mission (Aufgabe) of the University. His text was furnished by the exchange of professors inaugurated between America and Germany during the speaker's official year. Professor Peabody, of Harvard, who went to Berlin, had declared that a foreign lecturer could do justice to himself and his subject only if permitted to speak in his own language. With this Professor Diels fully agrees, especially should the lectures be on literary and kindred subjects. The revival of Latin as an international language of learning is, for practical reasons, too, out of the question. Nor does Diels think that the Esperanto, or indeed any mechanically contrived language, will ever answer this purpose. He holds that there is but one feasible solution of the problem, namely, the recognition on perfect equality of the three leading modern tongues, German, English and French. Such a linguistic 'Dreibund' the speaker pleads for as an acceptable *sine qua non* for the perfection of the scheme of exchanging professors, and for solving the international mission of the modern university."

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